

# **Summary of evidence for the use of Chinese medicine nursing in symptom management of lung cancer patients**

Jing Zhang<sup>1</sup>; Liyan Liu<sup>2,\*</sup>; Lisha Pang<sup>2</sup>; Jing Han<sup>3</sup>; Yuquan Ma<sup>4</sup>; Xuemin Tan<sup>4</sup>; Bing He<sup>5</sup>; Xingxiao Feng<sup>6</sup>

1 Cardiovascular surgery, Handan Central Hospital

2 Nursing Department, Handan Central Hospital

3 Eleven Department of General Surgery, Handan Central Hospital

4 Thoracic surgery, Handan Central Hospital

5 Operating theatre, Handan Central Hospital

6 Medical Record Department, Handan Central Hospital

\* Corresponding author

## **Objectives**

To search and summarize the best evidence of traditional Chinese medicine nursing in symptom management of lung cancer patients, so as to provide reference for medical staff to implement traditional Chinese medicine characteristic symptom management for lung cancer patients.

## **Background**

Patients with lung cancer often have treatment-related symptoms during treatment, which greatly reduces the quality of life of patients and increases the treatment cost of patients. Traditional Chinese medicine nursing technology plays a role in reducing adverse reactions, improving tumor complications and improving the quality of life.

## **Design**

An integrative review of the study.

## **Methods**

All evidence from guideline collaborative networks, professional association websites, and well-known domestic and international databases in the last 10 years was searched. Literature quality evaluation tools were used to evaluate the quality of the included literature, and evidence was extracted from those that met the quality requirements. The PRISMA checklist was used to evaluate the current study.

## **Results**

A total of 34 best evidences of the use of Chinese medicine nursing in symptom management of lung cancer patients were obtained. They are from three aspects: symptom management, emotions, and diet.

## **Conclusion**

The existing evidence shows that traditional Chinese medicine nursing has certain curative effect in the symptom management of lung cancer patients. In order to promote the standardized application of traditional Chinese medicine nursing, more clinical research, systematic evaluation and other evidence are still needed in the

future.

### **Relevance to Clinical Practice**

This study summarizes the evidence for the use of Chinese medicine nursing in symptom management of lung cancer patients and provides clinical decision-making for clinical nursing staff to carry out traditional Chinese medicine nursing in the management of lung cancer symptoms.

### **Patient or Public Contribution/s**

There are no patient or public contributions to this study.

**Keywords:** lung cancer; symptom management; summary; Traditional Chinese medicine

According to the GLOBOCAN2020 global cancer data, lung cancer is the second most common cancer.<sup>[1]</sup> In China, lung cancer ranks first in the overall mortality of malignant tumors and is the main cause of cancer death.<sup>[2]</sup> For the treatment of lung cancer, surgical treatment, chemotherapy, and radiotherapy are used according to the patient's disease stage and disease type. During the treatment process, patients often experience treatment-related symptoms, such as nausea and vomiting, diarrhea, rash caused by targeted drugs, peripheral neuropathy caused by chemotherapy, which greatly reduce the patient's quality of life and increase the patient's treatment costs, bringing a huge burden of disease to patients and their families. In recent years, high-quality evidence-based research has demonstrated the unique advantages of traditional Chinese medicine (TCM) in the treatment of lung cancer, and synergized with western medicine to reduce adverse reactions and improve the quality of life.<sup>[3]</sup> As an important part of TCM, TCM nursing is guided by the theoretical basis of TCM and based on the concept of holistic view and dialectical nursing. TCM nursing includes daily life nursing, diet nursing, emotional nursing, exercise nursing, TCM nursing technology, etc. Among them, TCM nursing technology has formed a relatively perfect technical specification, which is widely used in clinic and plays an important role in improving the rehabilitation and prognosis of patients.<sup>[4]</sup> At present, the evidence-based evidence of TCM nursing in the symptom management of lung cancer patients is complex and scattered. This study systematically retrieved the latest and best evidence related to the application of TCM nursing in the symptom management of lung cancer patients, and summarized the evidence, aiming to provide reference for the application of TCM nursing in the symptom management of lung cancer patients in clinical departments in domestic and international.

## **1 Materials and methods**

### **1.1 Identify evidence-based issues**

The PIPOST model of JBI evidence-based health care center was used to construct evidence-based questions.<sup>[5]</sup> P (population) is adult lung cancer patients; I (intervention) is TCM nursing measures; P (professional) is clinical manager, nursing

staff, patients and caregivers; O (outcome) is the remission rate of adverse symptoms such as vomiting, constipation and diarrhea; S (setting) is hospital, community or family; T (the type of evidence) is recommended practices, guidelines, standards, and systematic reviews.

## **1.2 Search strategy**

According to the evidence-based "6S" evidence model <sup>[6]</sup>, search using "lung cancer", "Chinese medicine nursing", "traditional Chinese medicine technology", "guidelines", "best practice", "evidence of summary", and "systematic reviews" as search terms. The search databases include Up To Date, BMJ Clinical Practice, Guidelines International Network (GIN), National Guidelines Clearinghouse (NGC), The Scottish Intercollegiate Guidelines Network (Sign), The Canadian Medical Association (CMA) Registered Nurses of Ontario (RNAO), The New Zealand Guidelines Group (NZGG), Joanna Briggs Institute (JBI), Cochrane Evidence Based Medicine Database, OVID Evidence Based Database, Mosby's Nursing Consultation, Elsevier, PubMed, Chinese Journal Full Text Database (CNKI), Wanfang Database (Wan Fang), VIP, China Biomedical Literature Database (CBM), and the official website of Medlive. Supplementary search of official websites of domestic and overseas Chinese medicine associations. Due to the guide being updated every 5 years, the database search period is set from July 2018 to July 2023, and the publication language is either Chinese or English.

## **1.3 Criteria for inclusion and exclusion of literature**

(1) Inclusion criteria: ① The study subjects are cancer patients diagnosed with lung cancer, aged  $\geq 18$  years old; ② The intervention measures are TCM nursing measures; ③ The language of publication includes Chinese or English. (2) Exclusion criteria: ① Clinical practice guidelines with incomplete information, summary of evidence, and systematic evaluation; ② A literature with only an abstract and unable to obtain the full text.

## **1.4 Document quality evaluation criteria**

(1) Guideline quality assessment. The quality of the guidelines was independently evaluated using the British 2012 clinical guidelines for research and evaluation (agree II) <sup>[7]</sup>. (2) Expert consensus. The text and opinion of JBI evidence-based health care center in Australia <sup>[8]</sup> were used for evaluation. (3) Systematic review. The authenticity of the systematic review (2016) <sup>[9,10]</sup> was evaluated by the Australian JBI evidence-based health care center. (4) Randomized controlled trials. The Cochrane risk bias assessment tool was used for quality evaluation. <sup>[11]</sup>

## **1.5 Evidence synthesis and grading**

Two researchers extracted data according to the pre-designed evidence extraction table and independently evaluated the evidence according to the literature quality evaluation standard according to the evidence type. When the conclusions of evidence from different sources are inconsistent or conflict occurs, the principles of

high-quality evidence priority, evidence-based evidence priority and the latest publication time priority shall be followed. Then the two researchers synthesize the recommendation opinions according to the three principles of consistent or complementary content, content conflict, and content independence <sup>[12]</sup>. In case of disagreement, the third researcher (a member of the evidence-based group) actively intervenes in arbitration or negotiation and reaches an agreement with the researcher. Finally, according to the JBI evidence pre-classification and evidence recommendation level system (2014 version) <sup>[13]</sup>, the extracted evidence was graded at the same time. Researchers and clinical nursing experts discussed the level of evidence recommendation according to the preciseness, feasibility, applicability, application effectiveness of the evidence, and divided the recommendation opinions into strong recommendation (Level A) and weak recommendation (Level B).

## 2 Results

### 2.1 Literature search results

A total of 375 literatures were retrieved, and 66 were obtained after de duplication. After reading the title and abstract, 20 were removed, and 46 were obtained. After reading the full text, 9 literatures were finally included. Among them, there are 2 clinical practice guidelines <sup>[14,15]</sup>, 2 expert consensus <sup>[16,17]</sup>, 3 systematic reviews <sup>[18-20]</sup>, and 2 randomized controlled trials <sup>[21,22]</sup>. The basic information of the literature is shown in Table 1.

**Table 1 information table of included literatures**

Included literature	Year of publication	Document type	Sources	Literature topics
Mao JJ et al <sup>[14]</sup>	2022	guide	Pubmed	Integrative Medicine for Pain Management in Oncology: Society for Integrative Oncology — ASCO Guideline
Chinese Association of Integrative Medicine <sup>[15]</sup>	2023	guide	Chinese Association of Integrative Medicine	Guidelines for Diagnosis and Treatment of Lung Cancer with Integrated Chinese and Western Medicine
National Administration of Traditional Chinese Medicine <sup>[16]</sup>	2013	expert consensus	National Administration of Traditional Chinese Medicine	TCM nursing plan for lung cancer
	2021	expert consensus	CNKI	Expert Consensus on the Diagnosis and Treatment of Lung Cancer by Integrated Traditional Chinese and Western Medicine
Lin LZ et al <sup>[17]</sup>				Meta-analysis of Efficacy of Acupoint Application of TCM in Arresting
Li XD et al <sup>[18]</sup>	2021	systematic review	CNKI	

				Vomiting after Chemotherapy for Malignant Tumors
	2018	systematic review	CNKI	Meta-analysis of Randomized Controlled Trials of Acupoint Application for Opioid-induced Constipation
Zhao R et al <sup>[19]</sup>				
Ma SY et al <sup>[20]</sup>	2022	systematic review	Wan Fang	Effect of moxibustion on quality of life in tumor patients: network Meta-analysis
Miu J <sup>[21]</sup>	2017	RCT	CNKI	Effect of acupressure on chemotherapy-induced nausea and vomiting, quality of life, and anxiety in patients with lung cancer
Lu Lin et al <sup>[22]</sup>	2019	RCT	Pubmed	Auricular acupressure for cancer-related fatigue during lung cancer chemotherapy: a randomised trial
Pan XJ et al <sup>[23]</sup>	2018	RCT	Wan Fang	Clinical study on transcutaneous electrical acupuncture for prevention of peripheral neuritis in patients with lung cancer undergoing chemotherapy

## 2.2 literature quality evaluation results

(1) Guide evaluation results. Two clinical practice guidelines were included in this study. The quality evaluation results showed that one clinical practice guideline issued by the American Society of Clinical Oncology (ASCO) was recommended, and one clinical practice guideline issued by Chinese Association of Integrative Medicine was recommended. The overall quality of the guidelines is good and should be included. See Table 2 for the standardized percentage and comprehensive evaluation of each region.

**Table 2 quality evaluation results of inclusion guidelines**

Included literature	the standardized percentage and comprehensive evaluation of each region (%)						Number of fields $\geq 60\%$	the Levels of Recommendation
	Scope and purpose	Participants	Formulation rigor	Clarity	Applicability	Editorial independence		
Mao JJ et al <sup>[14]</sup>	100.0	100.0	93.6	85.2	80.5	100	6	A
Chinese Association of Integrative							5	B
	92.6	94.4	90.4	85.2	34.7	100.0		

(2) The quality evaluation results of expert consensus. This study included two expert consensus, one was the TCM nursing plan for lung cancer issued by National Administration of Traditional Chinese Medicine<sup>[21]</sup>, and the other was the expert consensus on Integrated Traditional Chinese and Western medicine diagnosis and treatment of lung cancer jointly issued by The First Affiliated Hospital of Guangzhou University of Chinese medicine and Sun Yat-sen University Cancer Center. The quality evaluation results are shown in Table 3.

**Table 3 Expert consensus quality evaluation results**

Included literature	Terms					
	①	②	③	④	⑤	⑥
National						
Administration of						
Traditional Chinese	Y	Y	Unclear	Unclear	Y	Unclear
Medicine[16]						
Lin LZ et al[17]	Y	Y	Y	Y	Y	Y

Notices: ① Whether the source of opinions is clearly marked; ② Whether the opinions come from influential experts in the field;

③ Whether the proposed viewpoint is centered on the interests of the relevant groups of people; ④ Whether the stated conclusion is based on the results of analysis and whether the expression of views is logical; ⑤ Whether reference has been made to other existing literatures; ⑥ Is there any inconsistency between the proposed viewpoint and the previous literature.

(3) The quality evaluation results of systematic reviews . A total of 8 systematic reviews were included in this study, including 2 from CNKI [18, 19] and 1 from Wanfang [20]. See Table 4 for quality evaluation results.

#### Table 4 Systematic reviews quality evaluation results

[illegible]

Notices: ① Whether the evidence-based questions raised are clear; ② Whether the inclusion criteria of literature is appropriate for the evidence-based problem; ③ Whether the retrieval strategy is appropriate; ④ Whether the database or resources for literature retrieval are sufficient; ⑤ Whether the evaluation standard of literature quality is appropriate; ⑥ Whether two or more reviewers independently complete the literature quality evaluation; ⑦ Whether certain measures are taken to reduce errors when extracting data; ⑧ Whether the method of merging results is appropriate; ⑨ Whether the possibility of publication bias is evaluated; ⑩ Whether the proposed policy or practice recommendations are based on the results of systematic evaluation; ⑪ Whether the proposed further research direction is appropriate.

(4) The quality evaluation results of randomized controlled trials. Eight randomized controlled trials were included in this study, including one from CNKI <sup>[21]</sup>, one from PubMed <sup>[22]</sup>, and one from Wan fang <sup>[23]</sup>. See Table 5 for quality evaluation results.

Table 5 Randomized controlled trials quality evaluation results

Included literature	Terms							the Levels of Recommendation
	①	②	③	④	⑤	⑥	⑦	
Miu J <sup>[21]</sup>	Y	Unclear	N	N	Y	Y	Y	B
Lu Lin et al <sup>[22]</sup>	Y	Y	N	N	Y	Y	Y	B
Pan XJ et al <sup>[23]</sup>	Y	Y	Y	N	Y	Y	Y	B

Notices: ① Random sequence generation; ② Distribution hiding; ③ Blinding the subjects and testers; ④ Blinding the outcome evaluator; ⑤ The result data is incomplete; ⑥ Selective reporting of research results; ⑦ Other sources of bias.

2.3 Evidence summary and description

The evidence extracted from symptom management, emotion and diet was summarized, and 34 pieces of evidence about TCM therapy in symptom management of lung cancer were obtained, as shown in Table 6.

Table 6 Evidence Summary Table

Summary of Evidence		Level of evidence	Strength of recommendation
Cancer pain	1 Perform acupressure on the patient as prescribed, choosing from the Zhongfu, Yuji, and Neiguan acupoints, twice a day for 18 minutes each time, for 4 weeks. <sup>[14,23]</sup>	LEVEL1	A
	2 Perform acupoint paste on the patient as prescribed, Chanwubabu Ointment or Ailitong Ointment can be selected to paste on the pain site, or external	LEVEL5	B

application to Tiantu point, Danzhong point, etc. 1 patch at a time, change the medicine once in 1~2 days.<sup>[17]</sup>

3 For patients with chest pain, perform ear acupoint pressure on the patient as prescribed, choosing from the Shenmen, subcortex, sympathetic, lung and other acupoints.<sup>[16]</sup>

LEVEL5

B

4 Perform moxibustion on the patient as prescribed, choose Shenque, Guan Yuan, Jihai and Zhongwan as the main points, and each point moxibustion for 20 minutes each time.<sup>[15,17]</sup>

LEVEL5

A

5 The patient should be treated with Chinese herbal soaking, which can be used to wash and soak the hands and feet with Chinese herbal medicines (Gui Zhi, Chishao, Chuanxiong, Danshen, etc.), and the medicines should be warmed up, once a day for 30 minutes.<sup>[17]</sup>

LEVEL5

A

6 Acupuncture point pressure was performed for the patients as prescribed by the doctor, and Zusanli and Neiguan acupoints were selected for pressure, starting from the day before the chemotherapy, 3-5min at a time, and repeated once every 4 hours. The timing of pressure was 30 min before each chemotherapy drug infusion, 30 min after the start of chemotherapy drug infusion, 30 min after the end of chemotherapy drug infusion, and the corresponding acupoints were pressed. Pressure could be pressed at any time when the patient had nausea, vomiting and other discomforts.<sup>[21]</sup>

LEVEL1

A

7 Perform moxibustion on the patient as prescribed, Danzhong, Zhongwan, guanyuan can be selected, each time each point warm moxibustion for 20 minutes.<sup>[17]</sup>

LEVEL5

A

8 Wheat grain moxibustion can be implemented in accordance with medical advice to improve the nausea, vomiting, dizziness, insomnia, fatigue and other adverse effects of chemotherapy patients, while improving the body's immune system, promote metabolism and the recovery of internal organs.<sup>[20]</sup>

LEVEL3

B

9 For patients with spleen and stomach deficiency and coldness, acupuncture points are taken at Shuangfeishu, Shenshu, Weishu, and Zusanli; for patients with stomach yin deficiency, acupuncture points are taken at Shuangfeishu, Weishu, Zusanli; and Neiguan; and for patients whose liver qi offends the stomach, acupuncture points are taken at Shuangfeishu, Pishu, Yanglingquan, and Taichong. Apply once daily and remove after four hours.<sup>[17,18]</sup>

LEVEL5

B

10 Auricular acupoints were applied to the patient as prescribed by the doctor. For those with spleen and stomach deficiency, acupoints were taken from sympathetic, subcortical, stomach, spleen and kidney; for those with gastric yin insufficiency, acupoints were taken from sympathetic, stomach, cardia, esophagus and shenmen; and for those with liver qi offending the stomach, acupoints were taken from sympathetic, shenmen, stomach, liver and spleen.<sup>[17]</sup>

LEVEL5

B

11 Follow the doctor's instructions to implement acupressure for the patient, and may choose acupoints such as foot Sanli, Tianshu, Zhongkou, Guanyuan, and so on.<sup>[16]</sup>

LEVEL5

A

Cancer-related  
fatigue caused  
by chemo-  
therapy

Peripheral  
neuropathy  
caused by  
chemotherapy

Gastrointestinal  
response caused  
by  
chemotherapy

Diarrhoea



	12 The patient was prescribed interstitial ginger moxibustion, in which 3-4 mm fresh ginger slices were placed on the Shenque acupoints and several small holes were punctured in the slices, and moxa cones were lit on the slices, once a day for 3 consecutive days. <sup>[15,17]</sup>	LEVEL5	A
	13 Follow the doctor's instructions can be used to gyratory moxibustion moxibustion abdomen, to the navel as the center, up, down, left, right side of the open 1 ~ 1.5 inches, time 5 ~ 10 minutes. <sup>[16]</sup>	LEVEL5	A
	14 Follow the doctor's instructions for the patient to implement acupoints, can choose to use the Zhongwan point, Neiguan point, Shenque point, etc. to apply, apply 6 hours a day, continuous application of 3 ~ 5 days. <sup>[15,17]</sup>	LEVEL5	A
	15 Perform auricular acupressure on the patient as prescribed, which may include the Dachang point, Xiaochang point, Stomach point, spleen point, sympathetic nerve point, and shenmen point. <sup>[16]</sup>	LEVEL5	B
Anorexia	16 Follow the doctor's instructions to implement acupressure for the patient, you can choose Zusanli, Yanglingquan, Neiguan, Spleen Acupuncture Points, Stomach Acupuncture Points and other acupoints. <sup>[16]</sup>	LEVEL5	A
	17 Perform auricular acupressure for the patient as prescribed by the physician, choosing points such as spleen, stomach, and sympathetic. <sup>[16]</sup>	LEVEL5	B
	18 Follow the doctor's instructions for the patient to implement acupressure, you can choose the Tianshu, Pishu, Mangshu, large intestine and other points, cold evidence can be added moxibustion. <sup>[16]</sup>	LEVEL5	A
Constipation	19 Perform auricular acupressure for the patient as prescribed by the physician, choosing points such as the large intestine, stomach, spleen, sympathetic, subcortical, and constipation points. <sup>[16]</sup>	LEVEL5	B
	20 For patients with opioid-induced constipation, acupoints such as Shenque, Tianshu, and Zhongwan can be selected for acupoint paste. <sup>[19]</sup>	LEVEL3	B
	21 For patients with postoperative constipation after lung cancer surgery, auricular acupressure combined with acupressure can be used. <sup>[22]</sup>	LEVEL1	B
Fever	22 Follow the doctor's instructions to implement acupressure for the patient, you can choose the Hegu, Quchi for acupressure or the tip of the ear, the great vertebrae bloodletting (with caution for those with poor nutritional status). <sup>[16]</sup>	LEVEL5	B
Cough	23 According to the doctor's advice for patients to implement ear acupoint pressure, can choose lung, trachea, valve, and subcortical acupoints. <sup>[16]</sup>	LEVEL5	B
Shortness of breath	24 Perform auricular acupressure for the patient as prescribed by the physician, choosing acupoints from the lungs, trachea, shenmen, subcortex, spleen, and kidneys. <sup>[16]</sup>	LEVEL5	B
Targeted drug related skin rash	25 Follow the doctor's instructions to implement herbal soak for the patient, can use the application (composed of honeysuckle, diclofenac, bitter ginseng, etc.), or "itch-relieving and calming liquid" (composed of scutellaria baicalensis, bitter ginseng, white fresh skin, amaranthus, etc.) to apply externally or soak in the skin rash, two times a day. <sup>[15]</sup>	LEVEL5	A
Oral mucositis caused by	26 The patient should be given herbal gargle as prescribed by the doctor, which can be a gargle solution composed of Da Qing Ye, Xuan Shen, and	LEVEL5	A

targeted agents	Glycyrrhiza glabra, or Rehabilitation New Liquid, which should be gargled in the oral cavity 3 times a day. <sup>[17]</sup>		
Emotion care	27 According to the patient's specific situation, the Chinese medicine "seven feelings of nourishment" method for emotional care, including emotion to overcome emotion, language sensitization, psychological guidance, distraction and so on. <sup>[17]</sup>	LEVEL5	A
	28 Depending on the patient's specific situation, traditional health care qigong such as Baduanjin and taijiquan can be chosen to dredge the meridians and collaterals, improve qi and blood, relieve anxiety, strengthen the body and promote the recovery of internal organs. <sup>[17]</sup>	LEVEL5	A
	29 According to the patient's specific situation, the five elements of music therapy can be selected, guiding the patient to listen to the music of commercial tunes, express their emotions, alleviate the nervous and anxious state of mind, to achieve the role of regulating qi, blood, yin and yang. <sup>[16,17]</sup>	LEVEL5	A
	30 Patients with lung, spleen and qi deficiency should eat foods that tonify lung qi and spleen qi, such as glutinous rice, yam, quail, pigeon, beef, fish, chicken, barley, white lentils, pumpkin, mushrooms and so on. Recipe: glutinous rice and yam porridge. <sup>[16]</sup>	LEVEL5	B
Diet care	31 Lung yin deficiency type of patients should eat nourishing yin moistening lung food, such as honey, walnuts, lily, silver ear, autumn pear, grapes, radish, lotus seeds, sesame seeds and so on. Recipe: walnut and pear soup. <sup>[16]</sup>	LEVEL5	B
	32 Patients with qi stagnation and blood stasis should eat foods that move qi and activate blood circulation, resolve blood stasis and detoxify the toxin, such as hawthorn, peach kernel, Chinese cabbage, celery, white radish, ginger, garlic and so on. Recipe: White Radish Soup. <sup>[16]</sup>	LEVEL5	B
	33 Patients with phlegm-heat obstruction of the lungs should eat food that clears the lungs and resolves phlegm, such as raw pears, white radish, water chestnuts, etc. Those who cough up blood can eat kelp, water chestnuts and spinach. Recipe: Chili water chestnut and seaweed threads. <sup>[16]</sup>	LEVEL5	B
	34 Patients with deficiency of qi and yin should eat foods that benefit qi and nourish yin, such as lotus seeds, cinnamon balls, lean meat, eggs, fish, yam, sea cucumber and so on. Recipes: skin egg and lean meat porridge, cinnamon yuanyuan yam soup. <sup>[16]</sup>	LEVEL5	B

### 3 discussion

#### 3.1 Traditional Chinese medicine as CAM has become a common treatment strategy in the process of cancer treatment and rehabilitation

Traditional Chinese medicine (TCM) is the original medical science of the Chinese nation, focusing on time evolution and overall cognition. TCM reveals the occurrence and development of human health and diseases from a macro and systematic perspective. TCM as a complementary and integrated medicine (CAM) is widely used in foreign countries and has shown good curative effect. In the process of cancer treatment and rehabilitation, cam has become a common coping strategy.<sup>[24]</sup> More than half of the patients diagnosed with cancer in the world report using some form of

CAM. [25] The cross-sectional survey results in the United States, South Korea, Sweden and other countries show that cam mode should be considered in cancer treatment and nursing. [26-28] A systematic review of qualitative research found that cancer patients (regardless of disease stage) believe that complementary therapy can improve physical symptoms and psychological distress, with low cost and high safety. [29] Cancer patients' quality of life is low due to adverse reactions after chemotherapy and fear of disease. Studies have shown that the implementation of symptom management for patients can provide patients with more refined and scientific nursing intervention. [30] The role of TCM treatment in the management of various symptoms of lung cancer cannot be ignored. TCM therapy such as acupuncture and acupoint massage has preliminary research confirmed its effect on lung cancer dyspnea, pain, fatigue, nausea and vomiting. [31] In order to promote the application of TCM therapy in lung cancer symptom management by medical staff at home and abroad, this study used evidence-based methodology to summarize the evidence, and finally formed 34 pieces of best evidence about TCM therapy in lung cancer symptom management from three aspects of symptom management, emotion and diet. It is scientific and practical, and can improve the clinical decision-making ability of clinical medical staff to carry out symptom management with traditional Chinese medicine characteristics, and help patients effectively relieve discomfort.

### **3.2 The enlightenment of this study on the clinical practice of TCM characteristic lung cancer symptom management**

(1) Strengthen the standardized application of traditional Chinese medicine therapy. Clinical TCM nurses need to receive systematic and standardized TCM theory and skills training, which is to improve the cognition of TCM characteristic therapy, timely obtain the latest and best evidence, and master the skills of TCM therapy. (2) Appropriate nursing techniques were selected according to symptoms. It is suggested that clinical medical staff should combine the wishes of department managers and decision makers before implementing traditional Chinese medicine therapy for patients with lung cancer, and fully consider the obstacles and promoting factors of evidence application, the wishes and preferences of patients, and select appropriate nursing technology. (3) Clinical research still needs to improve the quality of methodology. Due to the limitations of the current research conditions, the included studies still have limitations and bias risk, leading to the degradation of the evidence level, and there is no clear standard for the operation details of traditional Chinese medicine therapy, such as frequency, acupoint selection, and course of treatment. In the future, multi center and large sample studies are still needed to further promote the formulation of relevant norms of traditional Chinese medicine therapy in the management of lung cancer symptoms.

#### **Ethics approval and consent to participate**

Not applicable.

#### **Consent for publication**

Not applicable.

#### **Availability of data and material**

All data generated or analysed during this study are included in this published article.

### **Competing interests**

The authors declare that they have no competing interests.

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### **Authors' contributions**

JZ, LS P brew and designed experiments, wrote articles; JH collected and analyzed data, evaluated the quality of literature; LY L, YQ M and XM T led the work support and critical review of the intellectual content of the article; BH and XX F proofread articles.

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